

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of the claims in this application:

1. - 48. (Cancelled)

49. (Currently Amended) An implantable orthopaedic prosthesis, comprising:

a laminar composite bearing having (i) a radiation crosslinked, quenched layer of polyethylene having ~~uniform crosslinking throughout~~ and an articulating surface defined in a first side thereof; and (ii) a non-crosslinked layer of polyethylene molded to a second, opposite side of said crosslinked, quenched layer of polyethylene at a melt-fused interface, wherein non-crosslinked polyethylene of the non-crosslinked layer of polyethylene is fused to crosslinked, quenched polyethylene of the crosslinked layer of polyethylene at the melt-fused interface.

50. (Currently Amended) The implantable orthopaedic prosthesis of claim 49, wherein said radiation crosslinked, quenched layer of polyethylene and said non-crosslinked layer of polyethylene are compression molded to one another.

51. (Cancelled)

52. (Previously Presented) The implantable orthopaedic prosthesis of claim 49, wherein:

said non-crosslinked layer of polyethylene has an engaging surface defined therein which is adapted to be secured to an acetabulum of a patient.

53. (Withdrawn) The implantable bearing of claim 49, wherein:

said crosslinked layer of polymer has an articulating surface defined therein, and

said non-crosslinked layer of polymer has an engaging surface defined therein which is adapted to be secured to a glenoid of a patient.

54. (Withdrawn) The implantable bearing of claim 49, wherein:
 said crosslinked layer of polymer has an articulating surface defined therein, and
 said non-crosslinked layer of polymer has an engaging surface defined therein
 which is adapted to be secured to a tibia of a patient.

55. - 124. (Cancelled)

125. (Currently Amended) An implantable orthopaedic prosthesis, comprising:
 a laminar composite bearing having (i) a first layer of polyethylene having an
 articulating surface defined in a first side thereof; and (ii) a second layer of polyethylene molded
 to a second, opposite side of said first layer of polyethylene at a melt-fused interface, wherein (a)
 said first layer of polyethylene is radiation crosslinked to a ~~uniform~~ first degree and quenched (b)
 said second layer of polyethylene is radiation crosslinked to a second degree that is different than
 said first degree and quenched, and (c) polyethylene crosslinked to the second degree of the
 second layer of polyethylene is fused to polyethylene crosslinked to the first degree of the first
 layer of polyethylene at the melt-fused interface.

126. (Previously Presented) The implantable orthopaedic prosthesis of claim 125,
 wherein said second degree is less than said first degree.

127. (Cancelled)

128. (Previously Presented) The implantable orthopaedic prosthesis of claim
 125, wherein said first layer of polyethylene and said second layer of polyethylene are
 compression molded to one another.

129. (Previously Presented) The implantable orthopaedic prosthesis of claim 125,
 wherein:

said second layer of polyethylene has an engaging surface defined therein which
 is adapted to be secured to an acetabulum of a patient.

130. (Withdrawn) The implantable bearing of claim 125, wherein:
said first layer of polyethylene has an articulating surface defined therein, and
said second layer of polyethylene has an engaging surface defined therein which
is adapted to be secured to a glenoid of a patient.

131. (Withdrawn) The implantable bearing of claim 125, wherein:
said first layer of polyethylene has an articulating surface defined therein, and
said second layer of polyethylene has an engaging surface defined therein which
is adapted to be implanted into a tibia of a patient.

132. Cancelled.

133. (New) The implantable orthopaedic prosthesis of claim 49, wherein said
radiation crosslinked, quenched layer of polyethylene comprises a radiation crosslinked,
annealed layer of polyethylene.

134. (New) The implantable orthopaedic prosthesis of claim 125, wherein said
first layer of polyethylene and said second layer of polyethylene comprise crosslinked, annealed
polyethylene.